

3.8 Fundamental Identities (key-odds)

Must show all work when simplifying! These are final answers only!

1. even

3. odd

5. $\csc x$

7. $\cos^2 \alpha$

9. $2\sin \alpha$

11. $\cot \alpha = 2$, $\sin \alpha = \sqrt{5}/5$, $\csc \alpha = \sqrt{5}$, $\cos \alpha = 2\sqrt{5}/5$, $\sec \alpha = \sqrt{5}/2$

13. $\sec \alpha = -5\sqrt{3}/3$, $\sin \alpha = -\sqrt{22}/5$, $\csc \alpha = -5\sqrt{22}/22$, $\tan \alpha = \sqrt{66}/3$, $\cot \alpha = 3\sqrt{66}/66$

15. $\cos x$

17. $\cos^2 x$

19. $-\tan^2 x$

21. $\csc x$

23. 325°

25. $\frac{3\pi}{2} \text{ ft}^2$

27. Amp: 3, phase shift: right $\pi/2$, period: $2\pi/5$, freq: $5/2\pi$, range: $[4, 10]$